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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,603	10/08/2000	Mark Yablonski	020431.0990	5144

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EXAMINER	
WANG, JIN CHENG	
ART UNIT	PAPER NUMBER
2628	

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/680,603	YABLONSKI ET AL.	
	Examiner	Art Unit	
	Jin-Cheng Wang	2628	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *47,48,50-56 and 58-72* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *47-48, 50-56 and 58-72* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/18/2006 has been entered. Claims 1-46, 49, and 57 have been canceled. Claims 50 and 58 have been amended. Claims 67-72 have been newly added. Claims 47-48, 50-56 and 58-72 are pending in the application.

Response to Arguments

Applicant's arguments filed August 18, 2006 have been fully considered but are moot in view of the new ground(s) of rejection of the claim 47.

As set forth below, the claim 47 is rejected under §103 as being unpatentable over Strasnick et al. U.S. Pat. No. 5,861,885 (hereafter Strasnick) in view of DeKimpe et al. U.S. Patent No. 6,665,682 (hereinafter DeKimpe) and Lokken U.S. Patent No. 6,167,396 (hereinafter Lokken).

Strasnick discloses cells to represent the salespersons' sales and teaches in figures 1-7 and column 1 and 16 axis relating to the parent member or a department cell in the department level being the parent of all the salespersons cells belonging to the department; column 7-8. He discloses that the children cells are the salespersons cells belonging to the department; see for example, column 7-8, lines 10-30 and the children salespersons cells representing the

disaggregation of the department cell to which they belong. Strasnick teaches in column 7-8 and 19-22 a user selection of a cell representing the company's total sales (a company cell) and all the sub-cells or children cells representing the departments' sales (the department cells) wherein the department cells emanate from the company cell and also all the sub-cells or children cells representing the salespersons' sales (the salesperson cells) wherein the salespersons' cells emanate from one of the departments' cells. Strasnick teaches warp navigation in which a navigator warps to the hierarchical dependents or children such as the department cells in the first level in response to the selection by the navigator from the company cell. Strasnick teaches warp navigation in which a navigator warps to the departments' cells in the first level in response to the selection by the navigator from the company cell. Strasnick thus teaches, in response to the user selection of the departments' cells in the first level for display of departments' sales data with respect to the x-axis by a warp navigator from the company cell, display on the graph the departments' sales data or departments' cells in the first level. Strasnick also teaches warp navigation in which a navigator warps to the salespersons' cells in the second level in response to the selection by the navigator from one of the departments' cells. Strasnick discloses, in response to a user selection of the second level for display of salespersons' sales data with respect to the x-axis from a department cell by the warp navigator, display on the graph the salespersons' sales data or the salespersons' cells in the second level.

DeKimpe teaches the claim limitation of "a top layer hierarchy associated with a third axis dimension." See DeKimpe Figs. 2 and 3; and column 6 wherein DeKimpe disclosescells in the multi-dimensional database along all dimensions and cubes have hierarchies of data within each dimension. Members of a dimension are included in a calculation to produce a consolidated

total for a parent member. Children may themselves be consolidated levels, which requires that they have children. A member may be a child for more than one parent, and a child's multiple parents may not necessarily be at the same hierarchical level, allowing multiple hierarchical aggregations within any dimension (DeKimpe column 6). **Drilling down or up is a specific analytical technique** whereby **the user navigate among levels of data ranging from the most summarized to the most detailed**. The drilling paths may be defined by the hierarchies within dimensions or other relationships that may be dynamic within or between dimensions. For example, when viewing data for Sales 324 for the year 1997 304 in Fig. 3, **a drill-down operation** in the Time dimension 302 would then display members Q1 366, Q2 308, Q3 310 and Q4 312.

DeKimpe discloses that in Fig. 3, there is a cube in three-dimensional space with each dimension represented by an axis of the cube and the intersection of the dimension members are represented by cells in the multi-dimensional database.

Lokken further discloses **a computer graphical user interface system comprising:**

A database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data (*Lokken column 4, lines 21-39*); and

A multi-dimensional graphical user interface coupled to the database (*Lokken column 4, lines 15-20*) **and capable of user interaction to provide a multi-dimensional user interactive graph comprising: a multi-dimensional axes data hierarchy including a top layer hierarchy associated with a first axis dimension** (*Lokken column 4, lines 60-67 and column 5, lines 1-11*), **a top layer hierarchy associated with a second axis dimension** (*Lokken column 4, lines 60-67 and column 5, lines 1-11*), **and a top layer hierarchy associated with a**

third axis dimension (Lokken column 4, lines 60-67 and column 5, lines 1-11); **and a unique bottom layer hierarchy including a plurality of function values** (*e.g., quantitative values in the space cube; see Lokken column 5, lines 1-11; see also Figs. 5-25*) **associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy; and a multi-dimensional value hierarchy associated with each of the function values of the multi-dimensional axes data hierarchy** (*Lokken column 4, lines 60-67 and column 5, lines 1-11*).

It would have been obvious to one of the ordinary skill in the art at the time of invention was made to have incorporated DeKimpe or Lokken's data visualization method because Strasnick's two dimensional hierarchy can be easily extended into higher-dimensional hierarchies including the three-dimensional hierarchy. Moreover, Dekimpe teaches other claim limitations set forth in claim 47 as well including a database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data and a multi-dimensional graphical user interface (drilling up and drilling down in Fig. 3) interaction to provide a multi-dimensional user interactive graph (cubes or hypercubes in column 6).

Strasnick implicitly discloses hierarchy being displayed on a ground plane of the information with respect to the x-axis and y-axis (See column 1 and 16-17). Strasnick implicitly discloses hierarchy being displayed on a ground plane of the information landscape with respect to the x-axis and y-axis wherein the X- axis of every display object is narrowed or expanded. The 2D plane or 3D box upon which the information objects are drawn has the X-dimension and Y-dimension or x-axis and y-axis as clearly taught by Strasnick in column 16-17. Strasnick discloses adjusting a width or height of a display of the information objects relative to the

viewpoint of the user. Strasnick discloses the x-axis being associated with the x dimension of the sales data, the x dimension or horizontal dimension for the x axis being associated with the sales data hierarchy having the parent levels and children levels displayed in the information landscape with the x-axis and y-axis of sales data for the x dimension or the horizontal dimension (see Figure 5B, column 6-8, 16-17, 20).

Moreover, Strasnick teaches in column 7-8 and 19-22 a user selection of a cell representing the company's total sales (a company cell) and all the sub-cells or children cells representing the departments' sales (the department cells) wherein the department cells emanate from the company cell and also all the sub-cells or children cells representing the salespersons' sales (the salesperson cells) wherein the salespersons' cells emanate from one of the departments' cells.

Strasnick teaches warp navigation in which a navigator warps to the hierarchical dependents or children such as the department cells in the first level in response to the selection by the navigator from the company cell. Strasnick teaches warp navigation in which a navigator warps to the departments' cells in the first level in response to the selection by the navigator from the company cell. Strasnick thus teaches, in response to the user selection of the departments' cells in the first level for display of departments' sales data with respect to the x-axis by a warp navigator from the company cell, display on the graph the departments' sales data or departments' cells in the first level.

Strasnick also teaches warp navigation in which a navigator warps to the salespersons' cells in the second level in response to the selection by the navigator from one of the departments' cells. Strasnick discloses, in response to a user selection of the second level for display of salespersons' sales data with respect to the x-axis from a department cell by the warp

navigator, display on the graph the salespersons' sales data or the salespersons' cells in the second level.

One of the ordinary skill in the art is motivated to do this because this allows the multiple dimension visual model being used to clearly present the data set to the user as organized in multiple levels along the multiple axis with each member being labeled (**DeKimpe Figs. 2-3 and column 6 and Lokken Figs. 5-27**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 47-48, 50-56 and 58-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strasnick et al. U.S. Pat. No. 5,861,885 (hereafter Strasnick) in view of Shoup et al. U.S. Patent No. 6,073,134(hereinafter Shoup) and Lokken U.S. Patent No. 6,167,396 (hereinafter Lokken).

1. Re Claim 47, 55, 63:

Strasnick teaches a computer graphical user interface system (See the abstract; figure 13; column 6) comprising:

A database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data (column 7-8);

A multi-dimensional graphical user interface coupled to the database and capable of user interaction to provide a multi-dimensional user interactive graph (e.g., column 7 and 8) comprising:

A multi-dimensional axes data hierarchy (*e.g., figures 1-7; column 1, 6-7 and 16*) including a top layer hierarchy associated with a first axis dimension (*e.g., departments or departments cells; see column 7-8*), a top layer hierarchy associated with a second axis dimension (*e.g., cells representing the departments' sales and axis has been taught in figures 1-7 and column 1 and 16*); and a unique bottom layer hierarchy including a plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy; and a multi-dimensional value hierarchy associated with each of the function values of the multi-dimensional axes data hierarchy (*e.g., cells representing the salespersons' sales and axis has been taught in figures 1-7 and column 1 and 16 wherein the parent member being a department cell in the department level being the parent of all the salespersons cells belonging to the department; column 7-8*); and *the children cells are the salespersons cells belonging to the department; see for example, column 7-8, lines 10-30* and *the children salespersons cells representing the disaggregation of the department cell to which they belong. Strasnick teaches in column 7-8 and 19-22 a user selection of a cell representing the company's total sales (<u>a company cell</u>) and all the sub-cells or children cells representing the departments' sales (<u>the department cells</u>) wherein the department cells emanate from the company cell and also all the sub-cells or children cells representing the salespersons' sales (<u>the salesperson cells</u>) wherein*

the salespersons' cells emanate from one of the departments' cells. Strasnick teaches warp navigation in which a navigator warps to the hierarchical dependents or children such as the department cells in the first level in response to the selection by the navigator from the company cell. Strasnick teaches warp navigation in which a navigator warps to the departments' cells in the first level in response to the selection by the navigator from the company cell. Strasnick thus teaches, in response to the user selection of the departments' cells in the first level for display of departments' sales data with respect to the x-axis by a warp navigator from the company cell, display on the graph the departments' sales data or departments' cells in the first level. Strasnick also teaches warp navigation in which a navigator warps to the salespersons' cells in the second level in response to the selection by the navigator from one of the departments' cells. Strasnick discloses, in response to a user selection of the second level for display of salespersons' sales data with respect to the x-axis from a department cell by the warp navigator, display on the graph the salespersons' sales data or the salespersons' cells in the second level).

- Examiner Notes:
- Strasnick discloses hierarchy being displayed on a ground plane of the information with respect to the x-axis and y-axis (See column 1 and 16-17). Strasnick discloses hierarchy being displayed on a ground plane of the information landscape with respect to the x-axis and y-axis wherein the X- axis of every display object is narrowed or expanded. The 2D plane or 3D box upon which the information objects are drawn has the X-dimension and Y-dimension or x-axis and y-axis as clearly taught by Strasnick in column 16-17.

- Strasnick discloses adjusting a width or height of a display of the information objects relative to the viewpoint of the user. Strasnick discloses <u>the x-axis being associated with the x dimension of the sales data</u>, the x dimension or horizontal dimension for the x axis being associated with the sales data hierarchy having the parent levels and children levels displayed in the information landscape with the x-axis and y-axis of sales data for the x dimension or the horizontal dimension (see Figure 5B, column 6-8, 16-17, 20). Therefore, Strasnick reads on the claim limitation of "a first axis being associated with a first dimension of the supply chain data, the first dimension for the first axis being associated with a first predetermined hierarchical arrangement of supply chain data for the first dimension."

However, Strasnick does not expressly disclose the claim limitation of "a top layer hierarchy associated with a third axis dimension".

DeKimpe teaches the claim limitation of "a top layer hierarchy associated with a third axis dimension." See DeKimpe Figs. 2 and 3; and column 6 wherein DeKimpe discloses cells in the multi-dimensional database along all dimensions and cubes have hierarchies of data within each dimension. Members of a dimension are included in a calculation to produce a consolidated total for a parent member. Children may themselves be consolidated levels, which requires that they have children. A member may be a child for more than one parent, and a child's multiple parents may not necessarily be at the same hierarchical level, allowing multiple hierarchical aggregations within any dimension (DeKimpe column 6). **<u>Drilling down or up is a specific analytical technique</u>** whereby **<u>the user navigate among levels of data ranging from the most</u>**

summarized to the most detailed. The drilling paths may be defined by the hierarchies within dimensions or other relationships that may be dynamic within or between dimensions. For example, when viewing data for Sales 324 for the year 1997 304 in Fig. 3, **a drill-down operation** in the Time dimension 302 would then display members Q1 366, Q2 308, Q3 310 and Q4 312.

DeKimpe discloses that in Fig. 3, there is a cube in three-dimensional space with each dimension represented by an axis of the cube and the intersection of the dimension members are represented by cells in the multi-dimensional database.

Lokken further discloses **a computer graphical user interface system comprising:**

A database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data (*Lokken column 4, lines 21-39*); and

A multi-dimensional graphical user interface coupled to the database (*Lokken column 4, lines 15-20*) **and capable of user interaction to provide a multi-dimensional user interactive graph comprising: a multi-dimensional axes data hierarchy including a top layer hierarchy associated with a first axis dimension** (*Lokken column 4, lines 60-67 and column 5, lines 1-11*), **a top layer hierarchy associated with a second axis dimension** (*Lokken column 4, lines 60-67 and column 5, lines 1-11*), **and a top layer hierarchy associated with a third axis dimension** (Lokken column 4, lines 60-67 and column 5, lines 1-11); **and a unique bottom layer hierarchy including a plurality of function values** (*e.g., quantitative values in the space cube; see Lokken column 5, lines 1-11; see also Figs. 5-25*) **associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy; and a multi-**

dimensional value hierarchy associated with each of the function values of the multi-dimensional axes data hierarchy (*Lokken column 4, lines 60-67 and column 5, lines 1-11*).

It would have been obvious to one of the ordinary skill in the art at the time of invention was made to have incorporated DeKimpe or Lokken's data visualization method because Strasnick's two dimensional hierarchy can be easily extended into higher-dimensional hierarchies including the three-dimensional hierarchy. Moreover, Dekimpe teaches other claim limitations set forth in claim 47 as well including a database operable to store hierarchically organized data associated with a multi-dimensional hierarchy of data and a multi-dimensional graphical user interface (drilling up and drilling down in Fig. 3) interaction to provide a multi-dimensional user interactive graph (cubes or hypercubes in column 6).

Strasnick implicitly discloses hierarchy being displayed on a ground plane of the information landscape with respect to the x-axis and y-axis wherein the X- axis of every display object is narrowed or expanded. The 2D plane or 3D box upon which the information objects are drawn has the X-dimension and Y-dimension or x-axis and y-axis as clearly taught by Strasnick in column 16-17. Strasnick discloses adjusting a width or height of a display of the information objects relative to the viewpoint of the user. Strasnick discloses the x-axis being associated with the x dimension of the sales data, the x dimension or horizontal dimension for the x axis being associated with the sales data hierarchy having the parent levels and children levels displayed in the information landscape with the x-axis and y-axis of sales data for the x dimension or the horizontal dimension (see Strasnick Figure 5B, column 6-8, 16-17, 20).

Moreover, Strasnick teaches in column 7-8 and 19-22 a user selection of a cell representing the company's total sales (a company cell) and all the sub-cells or children cells representing the departments' sales (the department cells) wherein the department cells emanate from the company cell and also all the sub-cells or children cells representing the salespersons' sales (the salesperson cells) wherein the salespersons' cells emanate from one of the departments' cells.

Strasnick teaches warp navigation in which a navigator warps to the hierarchical dependents or children such as the department cells in the first level in response to the selection by the navigator from the company cell. Strasnick teaches warp navigation in which a navigator warps to the departments' cells in the first level in response to the selection by the navigator from the company cell. Strasnick thus teaches, in response to the user selection of the departments' cells in the first level for display of departments' sales data with respect to the x-axis by a warp navigator from the company cell, display on the graph the departments' sales data or departments' cells in the first level.

Strasnick also teaches warp navigation in which a navigator warps to the salespersons' cells in the second level in response to the selection by the navigator from one of the departments' cells. Strasnick discloses, in response to a user selection of the second level for display of salespersons' sales data with respect to the x-axis from a department cell by the warp navigator, display on the graph the salespersons' sales data or the salespersons' cells in the second level.

One of the ordinary skill in the art is motivated to do this because this allows the multiple dimension visual model being used to clearly present the data set to the user as organized in

multiple levels along the multiple axis with each member being labeled (**DeKimpe Figs. 2-3 and column 6 and Lokken column 4, lines 60-67 and column 5, lines 1-11; Figs. 5-27**).

Re Claims 48, 56, 64:

Strasnick further discloses the claimed limitation of the first dimension comprising a seller dimension associated with a seller hierarchy (column 6-8); each of the plurality of members in the first level of the seller hierarchy representing all sellers within a corresponding geographic region (column 7); and each of the plurality of members in the second level of the seller hierarchy representing all sellers within a corresponding sub-region of a region represented by a member in the first level (column 8). Therefore, Strasnick discloses the claim limitation of "a plurality of levels of hierarchies associated with the top layer hierarchy, and the bottom layer hierarchy associated with each of the plurality of levels of hierarchies."

Strasnick further discloses the claimed limitation of the first dimension comprising a product dimension associated with a product hierarchy; each of the plurality of members in the first level of the product hierarchy representing all products associated with a corresponding product category; and each of the plurality of members in the second level of the product hierarchy representing all products associated with a corresponding sub-category of a product category represented by a member in the first level (column 22).

Strasnick further discloses the claimed limitation of the first dimension comprising a time dimension associated with a time hierarchy; each of the plurality of members in the first level of the time hierarchy representing all times with a corresponding time period; and each of the

plurality of members in the second level of the time hierarchy representing all times within a corresponding sub-period of a time period represented by a member in the first level (column 22).

Strasnick and DeKimpe further disclose the claimed limitation of the graph comprising three axes, each axis associated with a dimension of the supply chain, each dimension of supply chain data being associated with a predetermined hierarchical arrangement of supply chain data for the dimension (e.g., Strasnick figure 1; column 1 and 3; **DeKimpe Figs. 2-3 and column 6**).

Therefore, Strasnick discloses the claim limitation of "a top layer hierarchy associated with a third axis dimension, and the bottom layer hierarchy associated with the top layer hierarchy of the third axis dimension."

Re Claims 50-51, 58-59, 65

Strasnick further discloses the claim limitation of displaying a window indicating the particular member specified in the filter selection, and in response to selection the particular member displayed in the window, display on the first axis of the graph a graphical representation of supply chain data for the particular member in addition to the graphical representation of supply chain data for the other members in the level of the particular member (column 8 and 20).

Strasnick and DeKimpe further disclose the claim limitation of receiving a filter selection specifying a particular member within a level for which a graphical representation of supply chain data for the particular member is not to be displayed on the graph; and in response to receiving the filter selection and selection of a level for display of supply chain data with respect to the first axis, display on the graph a graphical representation of supply chain data for each

member in the selected level other than the particular member specified in the filter selection (Strasnick column 8 and 20 and **DeKimpe Figs. 2-3 and column 6**).

Therefore, Strasnick and DeKimpe disclose the claim limitation of "filtering at least a portion of the plurality of levels of hierarchies and in response the filtered levels of hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered levels of hierarchies in a separate filtered window."

Strasnick and DeKimpe further disclose the claimed limitation of the GUI operable to, in response to selection of a particular member of the first level for display of supply chain data with respect to the first axis, display on the graph a graphical representation of supply chain data for the selected particular member (Strasnick column 8 and 20 and **DeKimpe Figs. 2-3 and column 6**).

Therefore, Strasnick and DeKimpe disclose the claim limitation of "the multi-dimensional graphical user interface allows for a user navigation of the multi-dimensional axes data hierarchy by drilling into the top layer hierarchies associated with each of the axis dimensions."

Re Claims 52-54, 60-62, 66:

Strasnick further discloses the claim limitation of displaying a window indicating the particular member specified in the filter selection, and in response to selection the particular member displayed in the window, display on the first axis of the graph a graphical representation of supply chain data for the particular member in addition to the graphical representation of

supply chain data for the other members in the level of the particular member (Strasnick column 8 and 20 and Maguire Figs. 2-7).

Therefore, Strasnick and DeKimpe disclose the claim limitation of allowing the function value to be graphed over user selectable aggregations of user input data.

Strasnick and DeKimpe further disclose the claim limitation of receiving a filter selection specifying a particular member within a level for which a graphical representation of supply chain data for the particular member is not to be displayed on the graph; and in response to receiving the filter selection and selection of a level for display of supply chain data with respect to the first axis, display on the graph a graphical representation of supply chain data for each member in the selected level other than the particular member specified in the filter selection (Strasnick column 8 and 20 and **DeKimpe Figs. 2-3 and column 6**).

Therefore, Strasnick and DeKimpe disclose the claim limitation of "filtering at least a portion of the multi-dimensional value hierarchies and in response the filtered value hierarchies disappear from the multi-dimensional user interactive graph and the multi-dimensional graphical user interface displays the filtered value hierarchies in a separate filtered legend window."

Strasnick and DeKimpe further disclose the claimed limitation of the GUI operable to, in response to selection of a particular member of the first level for display of supply chain data with respect to the first axis, display on the graph a graphical representation of supply chain data for the selected particular member and the mathematical combinations can also be displayed (Strasnick column 8 and 20; **DeKimpe Figs. 2-3 and column 6**).

Therefore, Strasnick and DeKimpe disclose the claim limitation of "providing for user interaction of complex mathematical combinations of the multi-dimensional axes data hierarchy".

Re Claims 67-72:

Strasnick and DeKimpe further disclose the claimed limitation of the GUI operable to, in response to selection of a particular member of the first level for display of supply chain data with respect to the first axis, display on the graph a graphical representation of the mathematical combinations for each of the top layer hierarchies of the multi-dimensional axes data hierarchy (Strasnick column 8 and 20; **DeKimpe Figs. 2-3 and column 6**).

Lokken further teaches in Figs. 5-27 a first wall graphical user interface grid associated with a mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy and a second wall graphical user interface grid associated with the mathematical summarization of the plurality of function values associated with each of the top layer hierarchies of the multi-dimensional axes data hierarchy.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw

KEE M. TUNG
SUPERVISORY PATENT EXAMINER